

IN THE CLAIMS:

In line 1, delete Patent claims: and insert:

C L A I M S

What is claimed is:

Please amend claims 1-22 to read as follows:

1. (Currently Amended) Self In a self-supporting, heliothermal flat collector module (10.1, 10.3), including:
  - a sheet metal panel (1),
  - a register-shaped arrangement (30) of capillary tubes (3.1, ..., 3.n) separated from one another at a distance for the flow of a fluid medium that lies on the side opposite the side of the sheet metal panel (1) to be irradiated (11.1), and
  - a thermally insulating insulation core (4) that is also positioned on the rear side,

characterized in that the improvement wherein

- the capillary tubes (3.1, ..., 3.n) of the register-shaped arrangement (30) are placed in contact with the surface (5) of the thermally insulating insulation core (4), and
- the thermally insulating insulation core (4) is bonded to the sheet metal panel (1) by means of an elastic adhesive layer (2), whereby the capillary tubes (3.1, ..., 3.n) are at least partially embedded into the adhesive layer between the sheet metal panel (1) and the insulation core (4).

2. (Currently Amended) Flat collector module (10.2) as in Claim 1, characterized in that wherein each of the capillary tubes (3.1, ..., 3.n) of the register-shaped arrangement (30) is placed into a slot (14) worked into in the insulation core (4), whereby and wherein the capillary tubes (3.1, ..., 3.n) lie essentially flush with the insulation core (4) or extend above the insulation core (4) by an amount (H), which amount essentially corresponds to the thickness dimension (D) of a fluid adhesive layer (2) before hardening.

3. (Currently Amended) Flat collector module ~~(10.2)~~ as in Claim 1, ~~characterized in that~~ wherein the surface of the insulation core is flat, and ~~that~~ wherein the capillary tubes ~~(3.1, ..., 3.n)~~ are laid directly onto the flat surface.

4. (Currently Amended) Flat collector module as in Claim 1, wherein through 3, characterized in that the thermally insulating ~~the~~ insulation core ~~(4)~~ consists of comprises foam.

5. (Currently Amended) Flat collector module as in Claim 4, ~~characterized in that~~ wherein the foam consists of comprises foamed polystyrene or polyurethane.

6. (Currently Amended) Flat collector module as in Claim 1, wherein through 3, characterized in that the thermally insulating ~~insulation core~~ ~~(4)~~ consists essentially of fibers comprises fibrous material.

7. (Currently Amended) Flat collector module as in one of Claims 1 through 5, characterized in that Claim 1, wherein the material of the adhesive layer ~~(2)~~ has a higher thermal-conductivity coefficient than the material of the insulation core.

8. (Currently Amended) Flat collector module as in ~~one of~~  
~~Claims 1 through 5, characterized in that Claim 1, wherein~~  
the adhesive layer {2} is formed of an adhesive based on  
meth-acrylate.

9. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~  
the slots {14} possess a triangular, rectangular, oval,  
partially-round, or Ω cross-section.

10. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~  
the capillary tubes {3.1, ..., 3.n} consist of comprise a  
material selected from the group consisting of metal, or  
peripherally metal-coated plastic, or and of non-coated  
plastic.

11. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~  
the surface {5} that is flat or provided with slots {14} of  
the insulation core includes numerous recesses {6} to  
receive the adhesive.

12. (Currently Amended) Flat collector module as in Claim 11, characterized in that wherein the surface is provided with slots of a given depth, and the recesses (6) extend essentially to the slot depth ( $T_N$ ), or extend slightly past it.

13. (Currently Amended) Flat collector module as in Claim 11, wherein and 12, characterized in that the recesses (6) are formed by the pressure of a bristle roller or similar device.

14. (Currently Amended) Flat collector module as in one of the previous Claims, characterized in that Claim 1, wherein the sheet metal panel (1) is formed of one piece with two angled, arc-shaped edge profiles (16; 17).

15. (Currently Amended) Flat collector module as in one of the previous Claims, characterized in that Claim 1, wherein the sheet metal panel (1) is formed of one piece with two opposing, angled edges (13.1, 13.2) to connect the sheet metal panels to one another in a folded technique.

16. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~  
the side of the insulation core {4} facing away from the  
sheet metal panel {1} is supported by a plate-shaped  
stiffening element {23}.
17. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~  
the insulation core {4} is partially surrounded by a plastic  
or metal cassette {20}.
18. (Currently Amended) Flat collector module as in Claim  
17, ~~characterized in that wherein~~ the metal cassette {20}  
includes two opposing margins {21} angled outwards so that  
an elastic body {22} is positioned between the angled margin  
{21} of the metal cassette {20}.
19. (Currently Amended) Flat collector module as in Claim  
18, ~~characterized in that wherein~~ the elastic body {22} is a  
foam strip or adhesive band.
20. (Currently Amended) Flat collector module as in ~~one of~~  
~~the previous Claims, characterized in that Claim 1, wherein~~

the sheet metal panel (1) ~~consists of~~ comprises a titanium-zinc alloy.

21. (Currently Amended) Flat collector module as in ~~one of the previous Claims, characterized in that it~~ Claim 1, wherein the module possesses an overall thickness, including insulation core, ~~of between in the range of~~ 10 mm and ~~to~~ 50 mm, ~~preferably between 25 mm and 35 mm.~~

22. (Currently Amended) Flat collector module as in Claim 1 and ~~additional Claims 2 through 21, which is~~ installed in a stair step roof (40), whose surface consists of sheet metal panels (1) connected to one another.

Please add the following new claim:

23. (New) Flat collector module as in Claim 1, wherein the module possesses an overall thickness, including insulation core, in the range of 25 mm to 35 mm.

On page 17, please delete the entire page as follows:

**Reference Index List**

1. Sheet metal panel
2. Adhesive layer
- 3.1 ...3.n Capillary tubes
4. Insulation core
5. Surface
6. Recess
- 10.1; 10.2; 10.3 Flat collector module
- 13.1, 13.2 Edges
14. Slot
16. Edge
17. Edge
20. Metal cassette
21. Edge
22. Body
23. Stiffening element
26. Surface
30. Arrangement
40. Stair step roof
- A Separation
- D Thickness dimension

H \_\_\_\_\_ An amount

T<sub>n</sub> \_\_\_\_\_ slot depth